Report of the

Committee of Inquiry into

Caesarean-Section Rates in Nova Scotia

July, 1990

Executive Summary

91-00973/

In the last two decades, the rate of Caesarean-Section (C-Section) in Nova Scotia has followed national trends and has risen from 5.1% to 19.5% of all births, causing concern among providers, policy-makers and the public. Hospitals in the province have shown a wide variation in the percentage of deliveries carried out by C-section, reflecting differences in professional practices and policies, geographic considerations, availability of health-care personnel, resource limitations and, to a lesser degree, patient preferences and expectations. Medico-legal considerations have been a major influence.

As the result of an extensive literature review and consultations with professionals and community members, the Committee of Inquiry into Caesarean-Section in Nova Scotia believes that the present rate of C-section in the province can be reduced significantly. The requisite increase in vaginal delivery of primigravidae, and increased incidence of Vaginal Birth After Caesarean (VBAC), should be encouraged by a comprehensive system of **peer review and external audit**. Practitioners should develop province-specific guidelines and standards on the issue by means of a **Provincial Consensus Conference on Caesarean-Birth,** sponsored by the Nova Scotia Department of Health and Fitness.

Significant deficits in the **educational preparation of nurses** should be addressed by an **inter-disciplinary committee,** established for this purpose. This body should also examine the impact of increased transfer of function, specialization and demands for nurse-midwifery programs.

Hospitals should encourage patients to participate actively in their own care by **sharing information** on existing policies and procedures and by the use of **Birth Plans** for all maternity patients.The midwifery concepts of **holistic, non-interventionist, family-centred care** must be incorporated into the professional education and practice of nurses and physicians in the province. The **mandate and operation of the Reproductive Care Program of Nova Scotia (RCP)** should be reviewed to ensure that its role is made explicit.

Intersectoral cooperation between hospital and community agencies, serving pregnant women and their families in Nova Scotia, should be strengthened by the **inclusion of Community Health Nurses on perinatal committees** and by **increased referral of patients** by physicians to pre-natal classes.

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1.1 Statement of Issue

For several years, the Prepared Childbirth Association of Nova Scotia (PCANS) and a number of individuals in the Yarmouth area had expressed concern over the rate of Caesarean-sections being recorded at the Yarmouth Regional Health Centre. These concerns were largely encapsulated in the official report presented in November 1989, by the Nova Scotia Advisory Council on the Status of Women to the Minister of Health, the Honourable David Nantes.

1.2 The Committee of Inquiry

On January 19th, 1990, Mr Nantes announced the formation of a Committee of Inquiry into the rate of Caesarean-section in the province of Nova Scotia, with a mandate "to inquire into, and to make recommendations, to the Minister of Health and Fitness with respect to the rates of Caesarean-section within the province with special reference to Highland View Regional Hospital, Sydney Community Health Centre and Yarmouth Regional Health Centre".

Specific objectives were:

- To examine the rate of primary and repeat C-section in Highland View Regional Hospital, Sydney Community Health Centre and Yarmouth Regional Health Centre
- To review the reasons for the present rate of C-sections in these hospitals
- To make appropriate recommendations concerning possible methods of achieving a reduction in the rate of Caesarean-section

As 50% of all births in Nova Scotia take place at the Grace Maternity Hospital in Halifax, the committee decided to use the Grace as a reference point for its deliberations and extended its mandate to include an examination of Caesarean-section at that hospital.

1.2.1 Membership of the Committee of Inquiry

Under the chairmanship of Dr. Henry Bland (Medical Consultant, Nova Scotia Department of Health and Fitness), the committee included Mrs. Elizabeth Barker (Administrative Consultant, Nova Scotia Department of Health and Fitness), Mrs. Nancy Harmon (Community/Consumer Representative, Liverpool) and Dr. Roland Saxon (Consultant Obstetrician, St. Martha's Hospital, Antigonish)

1.2.2 Activities of the Committee

The committee began its work at the beginning of March 1990 and derived its information from three major sources : **Research, Consultations** with health-care professionals and **Public Hearings**. An extensive literature review on the topic of Caesarean-section, and related issues, comprised the **research** basis. A series of **consultations** was undertaken with staff at the Grace Maternity Hospital (Halifax), Highland View Regional Hospital (Amherst), Sydney Community Health Centre (Cape Breton) and Yarmouth Regional Health Centre (Yarmouth). In addition, submissions were invited from the Nova Scotia Medical Society and from the members of the Obstetrics and Gynecology Section of the Society.

In the spirit of the Nova Scotia Royal Commission on Health Care, the participation of citizens in the province was invited by means of **public hearings**, publicised well in advance in local newspapers. This input from the users of the health-care system was invaluable to the committee's deliberations on the topic.

The Committee's Schedule

The Committee's schedule was as follows :

(Note : at each hospital, the Committee spent 2 days meeting with the administrative, medical and nursing staff)

April 4, 1990	Yarmouth Regional Health Centre - staff meetings
April 4, 1990	Public Meeting, Yarmouth
April 5, 1990	Yarmouth Regional Health Centre - staff meetings
April 25, 1990	Highland View Regional Hospital - staff meetings
April 25, 1990	Public Meeting, Amherst
April 26, 1990	Highland View Regional Hospital - staff meetings
May 16, 1990	Sydney Community Health Centre - staff meetings
May 16, 1990	Public Meeting, Sydney
May 17, 1990	Sydney Community Health Centre - staff meetings
June 9, 1990	Public Meeting, Halifax
June 10, 1990	Grace Maternity Hospital - staff meetings
June 11, 1990	Grace Maternity Hospital - staff meetings

Acknowledgements

The committee would like to thank all those who contributed to this report, particularly staff members of the Grace Maternity Hospital, Highland View Regional Hospital, Sydney Community Health Centre and Yarmouth Regional Health Centre. The committee also expresses its gratitude to Dr. Thomas Baskett, Dr. Judith Kazimirsky, Dr. Leo Peddle, Dr. Alex Allen, the staff of the Reproductive Care Program of Nova Scotia, the members of the Medical Society of Nova Scotia and individual members of the section of Ob/Gyn, Dr. Hani Akoury (Moncton), Mrs Pat Lefebvre (Prepared Childbirth Association of Nova Scotia), Ms. Debi Forsythe-Smith and her colleagues from the Nova Scotia Advisory Council on the Status of Women.

Above all, the Committee would like to thank those members of the public who shared their opinions and experiences with us on the issue of Caesarean-section. Their participation in the public meetings contributed to a clearer understanding by the Committee of the problems of Caesarean-section from the viewpoint of the pregnant woman.

2.1 Caesarean-Section: An Overview

During the last two decades, Caesarean-section rates in both the United States and Canada have risen dramatically. Between 1969 and 1986, U.S. figures showed an increase from averages of 5.5% to 24.1%, with rates approaching 30% in some areas.[1] During the same period, Canadian rates climbed from 5.2% to 18.7% while Nova Scotian figures mirrored the national averages. (Appendix 1)The most recent figures available for 1988 indicated rates of 24.7% for the U.S., an estimated 18.3% for Canada and an average of 19.5% for Nova Scotia.[2,3,4] The rates for Canada and Nova Scotia showed a distinct levelling off in 1985 while U.S. rates continued their steady increase.

The increased incidence of surgical childbirth has caused deep concern among patients, providers and policy-makers alike and has been attributed to a number of causes. Of the various strategies which have been adopted to try to bring down Caesarean-section rates, the "active management of labour", Vaginal Birth After C-Section (VBAC) and the "less-interventionist" approach merit discussion.

2.1.1 The Changing Focus of C-Section.

Until around the middle of the twentieth century, Caesarean-section was seen as a dramatic, life-saving intervention indicated for grave conditions such as obstructed labour, placenta previa or prolapsed cord. The outcome for the baby was not a paramount consideration. With few options in family planning available, families were large and the loss of the child could in no way be equated with the loss of the mother.

In the new society which emerged after World War II, more married women entered the work-force, families declined in size, child-bearing often began at a later age and the relative value of the baby increased. **Improved anaesthesia** in the 1960's and 1970's, the almost universal application of the **lower segment uterine incision** for Caesarean-section, **effective antibiotic therapy**, **blood transfusion** and better **peri-operative care** have helped to contribute to a dramatic decline in operative mortality and morbidity.[5,6] As the dangers of the procedure diminished, C-section gradually became regarded as an appropriate intervention for fetal indications.

2.1.2 Factors Contributing to High Rates

Clinical indications alone have been insufficient to push C-section rates to their present levels and medico-legal considerations have undoubtedly influenced decisions to undertake the procedure.

2.1.2.1 Clinical Indications

Analysis of present C-section rates reveals that most clinical indications for C-section can be divided approximately into five main groups [7,8,9,10,11] :

- 10% performed for valid, absolute indications such as malpresentation, placenta previa or multiple pregnancies.
- 15% for fetal distress
- 3.5% for breech presentation
- 35% for repeat C-sections
- 35% for Dystocia

There is good evidence to support vaginal delivery of frank breech presentations. The National Consensus Conference on Aspects of Caesarean Birth **(1986)** recommended that "planned vaginal delivery should be conducted in women with frank or complete breech in which the infant is estimated to weigh 2500-4000 grams or to be 36 weeks' or greater gestation". However, many clinicians remain extremely reluctant to deliver breeches vaginally or to apply forceps to the after-coming head, because of apparent risk to the fetus.[12] The experience of the attending physician is acknowledged to be a crucial factor in the delivery decision and, when combined with the inescapable lack of precision in the estimation of the birth weight, must contribute to a limited acceptance of vaginal delivery for selected breech presentations[13]. Where breeches account for only 3.5% of all C-sections, a reduction in this number, while helpful, would produce little change in the over-all rate.

Any marked reduction in C-section rates will only be achieved by initiatives directed towards the two categories of **repeat C-sections and dystocia**, which together account for approximately 70% of surgery.The 35% rate for **repeat C-sections** is susceptible to considerable improvement if the option of Vaginal Birth After Caesarean-section (VBAC) can be promoted by doctors and accepted by patients.(see section 2.1.4.2)

An even more effective response would be to reduce the need for VBAC by a reduction in the primary procedures performed for dystocia. "Dystocia" has been variously defined as "abnormally slow or non-progressive labour", "failure to progress", "dysfunctional labour", "secondary arrest of dilatation" or, as one author wryly observed, "failure to wait".[14] The "catch-all" diagnosis of dystocia seems to be partly the result of a regimented approach to obstetrics where there is an imperative to complete delivery in a pre-determined time, without appropriate recognition of the differing speeds at which women in labour attain the same degree of progress.

Two very important points must be emphasised. First, before any labour can be termed "slow", it must be firmly established that true labour has, in fact, begun. Sometimes this is difficult to ascertain and a false diagnosis of labour can be made. Second,the use of electronic fetal monitors can result in many labouring women being confined to bed who might be better served by walking around.In normal pregnancies, it is now considered safe to do a 20 - minute monitor "strip" and then, if this is normal, to allow the woman to be ambulant, with regular checking of the fetal heart sounds with a fetoscope.

2.1.2.2 Medico-legal Considerations

Concern over Medico-legal liability is arguably one of the most important factors contributing to interventionist obstetrics and the rise in incidence of C-section.[16,17,18,19] Most studies of C-section refer to the influence exerted on the practice of obstetrics by the fear of litigation. The claim has been made that more than 70% of the Fellows of the American College of Obstetricians and Gynecologists (ACOG) have been sued at least once.[20] Parental expectations of a "perfect outcome" and the belief that a Caesarean can help to provide that child, are widely considered to be driving forces behind increased litigation in the United States.

A national survey was undertaken in Canada in 1988 on behalf of the Prichard Commission, of the extent to which medico-legal considerations pervade current clinical practice in obstetrics.[21] The random sample of 524 obstetricians,representing 43.1% of practicing Canadian obstetricians, had a response rate of 71%. 36% of the respondents reported that they had stopped or reduced their practice of obstetrics in the last 5 years.

The survey also showed a dramatic increase in the use of electronic fetal monitoring and associated C-section for suspected fetal distress, and a corresponding decrease in the use of mid-forceps deliveries. A substantial increase was also recorded over the preceding 5 years in the number of diagnostic tests used in the prenatal management of obstetric patients and fear of litigation figured prominently as a reason for this increase.

"The results of this survey demonstrate a serious manpower impact on the practice of obstetrics and gynecology in Canada arising from concerns regarding medico-legal liability. Combined with the current shortfall of practicing obstetricians and gynecologists, this has created a situation of growing crisis in the provision of reproductive care for Canadian women"[22]

The likelihood, real or perceived,of litigation has increased the cost of insurance coverage for all practitioners in the field of obstetrics. This is demonstrated by the current rates charged by the Canadian Medical Protective Association (CMPA), a mutual association of physicians who combined to form an insuring agency for the defence of

physicians involved in litigation related to their practice.

The following fees for 1990 show the various classifications of practitioners in obstetrics and the yearly premiums required for coverage in each class.(Source : CMPA Classifications System and Fee structure for 1990)

		Annual fees
Class 3		
35.	Family medicine or General Practice including antenatal.obstetrical care only.	$1050
Class 3A		
39.	Obstetrical Practice without labour and delivery.	$1950
Class 4A		
80.	Family Medicine or General practice including obstetrics (work not covered in Class 3) (Note: in 1984 this fee was $900)	$2350
Class 6		
93.	Obstetrics (Note : in 1984 this fee was $1950)	$11,900

2.1.3 Concerns Associated with C-section

The majority of concerns raised by the public centres around the risks of complications to both mother and baby, the associated costs of surgical intervention and the "medicalizing" of the birth process.

2.1.3.1 Complications

Caesarean delivery entails increased risks to both mother and baby, although the relative occurrence of serious injury and/or mortality is infrequent. Serious morbidity can result from anaesthetic complications, sepsis, haemorrhage requiring blood transfusion, operative complications such as surgical trauma to internal organs, thrombo-embolism, wound dehiscence and conditions necessitating admission to an Intensive Care Unit or a return to an O.R.[23] Although overall maternal mortality is extremely low, caesarean

delivery carries a risk of maternal mortality **two to four times greater** than that of vaginal delivery.[24]

Although a timely Caesarean can save the life of a baby, a Caesarean newborn is more likely to suffer from premature birth caused by a mistakenly-timed C-section, from asphyxia and from breathing disorders such as respiratory distress syndrome.[25] There is little proof that an increase in the rates of Caesarean section is responsible for improvements in perinatal mortality statistics.[26]

2.1.3.2 Costs

C-sections are widely believed to have a significant effect on health-care resources, although a general lack of appropriate information in Canada makes it difficult to quantify the exact costs of the procedure. The "per diem" rates cited by hospitals which work on a global budget are not helpful in this context, as they represent only an average of all the costs involved in operating the institution. In relation to C-section, physician fees are the only accurate statistics available in Canada.

The United States, however, has developed extremely sophisticated systems of measuring all costs of C-section relative to vaginal deliveries and, while the dollar figures are not applicable, the ratio between the costs is likely to reflect the Canadian experience. Information received from a teaching hospital in Springfield, Illinois, which delivers 3000 babies each year, showed that in May, 1990 an uncomplicated C-section with a length-of-stay of 4-5 days cost $3500. A normal vaginal delivery cost $1600 for a 48-hour stay or $1200 for a "hurry-up" stay of 24 hours.[27] These figures did not include physicians' fees.

2.1.4 Strategies to Reduce C-Section Rates

Three main courses of action have been proposed to reduce the rate of C-section. (1) "active management of labour"; (2) Vaginal Birth after Caesarean (VBAC) and (3) fewer interventions in labour.

2.1.4.1 "Active Management of Labour"

This technique had its origins in the 1970's in the National Maternity Hospital in Dublin, Ireland, one of the largest obstetric units in Western Europe, as the result of a hospital amalgamation which left staff unable to cope with the resulting workload. The assumption was made that "success" in a first labour would have a positive influence on the course of subsequent labours. Twelve hours was chosen arbitrarily as the limit of ability to cope with pain. The primary objective of staff was to deliver every patient within this time-limit after admission to hospital. However, patients were admitted only after established labour

had been diagnosed according to very specific criteria. A highly structured approach was developed and followed, with strict rules governing the use of oxytocin, the rupture of membranes and the timing and frequency of patient assessment.[28] The professionals functioned within a rigid hierarchy and a clear chain of command. Continuous nursing care was considered the most vital part of the strategy.

Attendance at 8 pre-natal classes was mandatory.[29] The patient was guaranteed that her labour would not exceed 12 hours and that a nurse would always be by her side during this time. Heavy emphasis was placed on active ambulation of the patient and a strong element of social pressure was exerted on the woman by staff to achieve "success".

From 1972 to 1986, the Caesarean-section rate in the National Maternity Hospital in Dublin remained relatively steady at around 5%, while a significant reduction in perinatal mortality occurred.[30] The instigators of the Dublin protocol, therefore, proposed in 1983 that a policy of active management of labour in primiparous dystocia "would go along way towards resolving the contentious issue of high Caesarean-birthrates."[31]

In recent years the study has been quoted widely and often incorrectly, with inadequate attention given to the influences of factors such as assured one-to-one nursing care, active ambulation during labour, a cast-iron guarantee of "success" within a specific, short time-frame and intensive pre-natal preparation. One very significant difference between the Dublin protocol and the traditional North American approach "is that in the former the diagnosis of labour can be made only after progress in cervical dilatation is apparent, which excludes the North American concept of a latent phase".[32]

The results achieved in Dublin may have less to do with the whole protocol than with some of the individual variables comprising the strategy. Critics have questioned whether accepted North American practice would allow the enforcement of a single rigid approach to the management of labour within one institution.[33] It is even less likely that patients , in today's climate of patient advocacy and client autonomy, would agree to a highly-structured regime without options or flexibility.[34] The outcome of a number of attempts currently being made in North America, to implement an "active" approach to the management of labour, may refute these assumptions.

2.1.4.2 Vaginal Birth After Caesarean (V.B.A.C.)

"Once a Caesarean, always a Caesarean" is a dictum first proposed in 1916, when Caesareans were of the classical variety and the incidence of uterine rupture significant.[35] Recent medical findings, however, have shown this to be an extremely rare complication in around only 0.22% of women with previous low, transverse uterine incision and single vertex presentation.[36]

The safety of VBAC has been supported by numerous research studies, validated by the National Consensus Conference on Aspects of Caesarean Birth (June 1986) and endorsed in official policy statements from the American College of Obstetricians and Gynecologists, and the Society of Obstetricians and Gynecologists of Canada. When strict selection criteria are applied to patients wishing to undergo a "trial of labour", the safe vaginal delivery of 64-70% can be expected.[37] It has been estimated that "in Canada, where 30-36% of Caesarean-sections are repeat operations, the overall C-section rate can be reduced by 15-18% (of the total rate) by permitting a trial of vaginal birth after the primary C-section"[38] On the subject of uterine rupture, the Panel of the National Consensus Conference on Aspects of Caesarean Birth recommended that "hospitals providing obstetric care should ensure the availability of blood, operating rooms, neonatal resuscitation, and nursing, anaesthetic and surgical personnel so that a Caesarean can be started within APPROXIMATELY 30 minutes for any woman in labour, including a woman undergoing trial of labour".[39]

The Canadian Medical Protective Association, however, has stated that " in the event of an adverse outcome and a subsequent lawsuit, the foregoing (Consensus Conference) guidelines will be required to HAVE BEEN RIGIDLY ADHERED TO". (CMPA Information Letter, Fall 1989) This places the obstetric practitioner in the unfortunate position of having to determine how to adhere rigidly to an approximate deadline, in the event an adverse outcome places his/her standards of practice under scrutiny by peer review or by the courts.

2.1.4.3 Fewer Interventions

The use of routine interventions during childbirth is under close scrutiny. Numerous studies have questioned the necessity of practices such as shaving, enemas, I.V.'s, artificial rupture of membranes, delivery in lithotomy position, use of oxytocin, episiotomy and the use of fetal monitoring as the principal means of intrapartum fetal surveillance.[40] The "cascade" effect of such procedures, consisting of an initiating factor followed by a series of events which proceed with increasing momentum to a less than satisfactory conclusion, has been well documented in the birth process.[41] Fetal monitoring alone has made a significant contribution to a higher rate of C-section. Extensive studies have shown as much as a 35.5% incidence of false positive prediction of fetal compromise.[42] The idea that procedures which have proved beneficial to "high-risk" patients must therefore be appropriate for so-called "low-risk" patients no longer goes unchallenged. More interventions and technology do not necessarily mean better care.

The evidence is mounting in favour of a "low-tech", non-interventionist approach to low-risk patients, within a framework and philosophy quite separate from that of a tertiary-care setting and approach. One recent Toronto study demonstrated that family physicians give less intrusive but equally safe care during childbirth for low-risk patients.[43] Other studies have shown similar results.[44,45]

2.2 Caesarean-Section in Nova Scotia

2.2.1 Caesarean-Section rates in Nova Scotia

Since 1970, C-section rates in the province have risen from around 5% to 19.5% in 1988/89, closely following the national trend. Although the rate has slowed, no signs of an actual decrease is yet apparent.(Figure 1)

Figure 1

C-section rates in Nova Scotia.

	83/84	84/85	85/86	86/87	87/88	88/89
C-sections	2254	2316	2306	2353	2341	2399
Other del.	10144	9941	10140	9919	9712	9874
C-section rate	18.1%	18.8%	18.5%	19.1%	19.4%	19.5%

(Source : A/S Reporting System, Dept. of Health and Fitness)

Within the province, the rates for individual hospitals show wide variations and are heavily dependent upon a variety of factors such as referral patterns, geographic considerations, the availability of obstetric specialists and the practice patterns of individual physicians. (see Appendix 2 for the rate of C-section in individual hospitals from 1983/84 to 1988/89)

2.2.2 Obstetrical Services in Nova Scotia

An understanding of the general context and background to the provincial delivery of services is essential to a discussion of Caesarean-section rates in Nova Scotia.

2.2.2.1 Present Delivery of Obstetrical Services

The province provides obstetric care to a stable population with approximately 12,000 deliveries per year. In 1988/89,for example, a total of 12, 273 deliveries occurred in 18 community, 7 regional and 2 tertiary hospitals. Six hospitals recorded 2 or fewer deliveries, which represented unexpected births occurring in institutions without obstetrical units. In the 7 regional hospitals, the number of babies delivered ranged from 298 to 668. In the same year, the Grace Maternity Hospital and Sydney Community Health Centre delivered 5706 and 1099 babies respectively. Together, the regional and tertiary care hospitals accounted for 90.4% of all Caesarean-sections in the province of Nova Scotia.

Each of these hospitals has a dedicated nursing staff in a defined obstetric department. Medical services are available from family physicians and obstetricians who provide pre-natal care in their offices. In addition, the Division of Community Health within the Nova Scotia Department of Health and Fitness provides pre-natal education classes. For reasons of geography, these are not universally available and are not fully utilized even when available. It is estimated that they are able to serve only about 30% of pregnant women. Experience has shown that the greatest benefit of these classes is obtained by women who are pregnant for the first time.

2.2.2.2 The Reproductive Care Program (RCP)

The Reproductive Care Program of Nova Scotia was initiated approximately 20 years ago as a joint effort of Dalhousie University, the Nova Scotia Medical Society and the Nova Scotia Department of Health, in response to concerns at that time over poor obstetrical outcomes, and lack of appropriate physician education in obstetrics. Although RCP does not have a formal statement of goals and objectives, it appears to have taken as its mandate " to develop and implement health-care policies designed to improve maternal , fetal and neonatal health throughout the province of Nova Scotia" [46]

Operating on a basis of trust, confidentiality and voluntary involvement in its activities, RCP offers formal and informal educational sessions for nurses, obstetricians and family physicians working in obstetrics, as well as a system of perinatal surveys of institutions. At the invitation of medical/nursing staff, RCP personnel review all aspects of obstetrical/neonatal facilities, staffing and policies, and make recommendations specifically tailored to local problems and issues. Implementation of these recommendations is left to the discretion of the local medical and nursing staff. No report is made to the hospital administration or to the Department of Health and Fitness.

Since 1980, a system of computerized perinatal data collection has been introduced by RCP, using standard and comprehensive maternal/neonatal chart forms for every obstetrical unit in the province. All provincial hospitals providing obstetric care have been on-line with this database since 1989. This should allow "future province-wide analysis and comparison of perinatal mortality, morbidity, referral patterns, outcome and follow-up"[47] Extra funds were allotted to enable the staff of Medical Records Departments to perform the necessary data-entry functions and no reduction in this effort is anticipated as the result of budgetary constraints.

2.2.2.3 Costs of Obstetrical Services in Nova Scotia

The formal health-care insurance system in the province supports the provision of obstetrical services in hospitals, community health facilities and physicians' offices. However, a lack of appropriate information prevents an accurate assessment of the true costs of these services, with the exception of physicians' fees.

The following fee schedule represents the amount approved by MSI for physician reimbursement for obstetrical care, on April 1st., 1990. (Please note that MSI pays 90% of the approved fee schedule and the actual sum received by the physician is reflected in the "fee paid" column. One "unit" is equivalent to $1.90)[48]

Code	Description	No. of Units	Fee paid
General Practitioners			
0286	Complete pregnancy exam (only 1 per pregnancy)	29.3	$50.10
0287	Routine pre-natal visit (maximum 12 visits)	10.4	$17.78
0281	Obstetrical delivery only (also applicable when attending physician assists at C-section)	105	$179
0288	In-hospital post-partum visit	42	$71.82
0285	Six week postnatal exam. visit	16.5	$28.21
Specialist			
0381	Obstetric delivery only	123.5	$211.18
0387	Pre-natal visit	13.8	$23.59
0388	Postpartum care in hospital (per visit)	13.8	$23.59
0385	Post-natal visit	21	$35.91
2424	Caesarean-section	179	$306.09
G001	Major consultation	33.6	$57.45

No premium fees are payable for obstetrical procedures except for emergency Caesarean-sections.(A "premium" fee is paid for certain services provided on an emergency basis during designated time periods.) An emergency basis is defined as services which must be performed without delay because of the medical condition of the

patient. Obstetrical procedures, with the exception of C-section, are specifically excluded from qualifying for consideration.[49]

On July 1st., 1990 the following fee increases are planned:

Code	Description	Units	Fee
0281	Delivery (by G.P.)	123	$210.33
0381	Delivery (specialist)	160	$273.60

2.2.3 Caesarean-section in Selected Hospitals

The rates for Caesarean-sections performed at Grace Maternity Hospital, Highland View Regional Hospital, Sydney Community Health Centre and Yarmouth Regional Health Centre from 1983-89 are shown in Figure 2.

Figure 2

Rates of C-section in the province for selected hospitals

	83/84	84/85	85/86	86/87	87/88	88/89
Grace	18.8%	18.9%	19.0%	18.8%	19.8%	19.7%
H'land	27.6%	29.0%	26.3%	23.6%	23.5%	32.5%
Sydney	30.2%	30.1%	26.6%	30.4%	25.1%	27.0%
Y'mouth	25.1%	26.0%	22.7%	23.9%	26.8%	26.0%

(Source: N.S. Department of Health and Fitness)

2.2.3.1 The Grace Maternity Hospital, Halifax

The Grace Hospital functions as the community hospital for obstetrics for the Halifax/Dartmouth metropolitan area and Hants County, as the regional hospital for the area and as the tertiary-care referral centre for the province as well as for the Maritimes. Around 20% of the hospital's patients can be classified as "high-risk" while the remaining 80% are community-type patients.[50] The Caesarean - section rates at the Grace Hospital from 1985 to 1988 are shown in Figure 3.

Figure 3

C-Section Rates in Grace Maternity Hospital, Halifax

	1985	1986	1987	1988
Total deliveries	5378	5488	5514	5722
Total C-sections	1028	1065	1052	1111
C-section rate	19.1%	19.4%	19.1%	19.4%
Total 1st. c/s	600	662	664	728
Primary c/s rate	11.2%	12.1%	12.0%	12.7%
Total repeat c/s	428	403	388	383
Repeat c/s rate	8.0%	7.3%	7.0%	6.7%

(Source : Grace Maternity Hospital, June 1990)

Closely affiliated with Dalhousie University, the Grace carries a major responsibility for research and for the teaching of medical students, physicians, nurses and other health-care professionals, as well as honouring its commitment to patient care. Approximately 250 G.P.'s have obstetric privileges at the hospital and are supported by around 100 other physicians on staff in a variety of roles. Anaesthesia coverage is provided on a 24-hour basis with a full epidural service. The epidural rate is around 45% for all vaginal deliveries - 22% for multiparae and over 50% for primiparae. Although family physicians may request epidural, every patient is seen by an anaesthetist prior to epidural installation and a truly progressive labour is a requirement for the procedure. The guidelines of the Canadian Anaesthetists' Society recommend that a viable epidural service requires around 2000 deliveries per year and the **immediate** availability of an anaesthetist to handle complications. This would suggest that the Grace Hospital is the only provincial institution capable of supporting a full 24-hour-a-day epidural service.

Due to its function as a community hospital for 80 % of its patients, the Grace's C-section rate can also be considered in terms of community and tertiary rates. In 1988, for example, the "community" C-section rate was 18.1% and the "tertiary" rate was 26.7% which reflects the complex nature of referred obstetric cases [51].

An Annual staff meeting takes place at the hospital and Family Practice Grand Rounds are held weekly. There is no medical staff quality assurance (QA) committee, although a hospital staff QA committee exists, on which there is medical representation. In particular, there is no specific case by case review of all C-Sections.

The hierarchy inherent in a large teaching hospital makes it difficult for family physicians to relate on a collegial basis to specialist obstetricians. The "high-risk" emphasis placed on tertiary care patients is thought to have a "spill-over" effect on the remaining 80% of patients, particularly in the absence of an identified family medicine philosophy for this population. The role of the G.P. is therefore very ambiguous. A number of physicians wish to bring the practice of normal obstetrics under the influence of family physicians at the hospital. They propose that this should be done by designating a separate section of the labour/delivery area for "normal" deliveries, staffed by G.P.'s , with its own nursing staff, guiding philosophy and protocols for management.

Although the hospital has no explicit policy on the issue, Vaginal Birth After Caesarean (VBAC) is said to be strongly endorsed by most medical and nursing staff. Statistics for 1988 showed that 32.07% of women, who had previously undergone C-section, proceeded to a trial of labour and, of these, 73.9% were successful in delivering vaginally. No incident of ruptured uterus was recorded in this population. Some patients still do not accept the option of VBAC but this depends heavily on how the option is presented by staff.

2.2.3.2 Highland View Regional Hospital (HVRH)

Highland View handles between 330 and 370 deliveries per year. The rates of Caesarean-section since 1982 can be seen in Figure 4.

Figure 4

C-section Rates in Highland View Regional Hospital, Amherst

	1982	1983	1984	1985	1986	1987	1988	1989	1990*R
Deliveries	253	269	240	281	315	353	334	373	140
C/sections	61	71	72	80	76	77	105	84	24
C/S rate	24%	26.1%	30%	28.5%	24%	21.8%	31.4%	22.5%	17.1%

Primary C/S	14.2%	24.2%	20%	16%	13%	11.9%	24%	14.7%	7.8%
Second C/S	9.8%	6%	10%	12.5%	11%	9.9%	7.4%	7.8%	9.3%

(Source : Highland View Regional Hospital, June 1990)

Notes:

1. Statistics for 1990 reflect the period from January to May

2. When dealing with small numbers of total deliveries, one additional C-section per month can increase the annual C-section rate by more than 3%.

Obstetrical services at Highland View are provided by a solo obstetrician, 9 G.P.'s with obstetrical privileges, 2 full-time anaesthetists and 3 general surgeons who undertake Caesarean-sections in the obstetrician's absence. There is no formal Department of Obstetrics. Issues pertinent to obstetric practice are brought to the monthly meetings of the perinatal committee, which is composed of one obstetrician, a general practitioner, a head nurse and 3 staff nurses. This committee reports to the hospital's Medical Advisory Committee.

The hospital's obstetrical population includes women from Sackville (New Brunswick) and Springhill, where obstetrical services were discontinued at the local hospital about 4 years ago. If patients require emergency transfer out of HVRH for obstetrical or neonatal complications, the preference is to use services in Moncton (New Brunswick) rather than Halifax.

Since the appointment of an obstetrician to the hospital in the fall of 1985, the rate of C-section has declined steadily, with the exception of 1988, when a significant proportion of the year's total C-sections were performed during the 2 months of the obstetrician's absence. This was considered to be due to the diminished confidence on the part of G.P's when the obstetrician was not available and to the declining ability of practitioners to conduct forceps deliveries.

VBAC is encouraged at Highland View, although the necessary 1 to 1 nursing coverage can tax resources heavily at times. The hospital is confident that it can comply with RCP guidelines on the availability of a GP for augmentation of labour, as well as with CMPA and SOGC guidelines governing VBAC and C-section. Few patients have, in fact, chosen the option of VBAC in the past, although increasing numbers of women have expressed interest in the option recently.

Concerns with legal liability, increased malpractice insurance fees and irregular hours of work combine with manpower shortages and geographic considerations to discourage physicians from either practicing obstetrics or from deviating from accepted patterns of practice.

A number of deficiencies were identified in the educational preparation of nurses working in obstetrics. These include over-reliance on monitors, lack of skills in the use of the fetoscope, inadequate experience in reading the "strip", wide variations in coaching and support skills and a lack of encouragement for "rooming-in".

2.2.3.3 Sydney Community Health Centre

Sydney Community Health Centre has the largest obstetrical service in the province outside the Grace Maternity Hospital, conducting around 1100 deliveries per year in its 5 active labour and one observation rooms. The C-section rates since 1985 at the hospital are shown in Figure 5.

Figure 5

C-section Rates in Sydney Community Health Centre, Sydney

	1985-86	1986-87	1987-88	1988-89
Rate	26.6	30.4	25.3	27.1
Primary C/S	14.5	13.9	11.5	11.0
Secondary C/S	12.1	16.5	13.8	16.1

Since 1986, the rate of repeat C-sections has exceeded the rate of primary C-sections in the hospital.

Obstetric services are provided by 4 obstetricians, 6 anaesthetists, 1 neonatologist, 2 pediatricians and approximately 60 general practitioners, 10 of whom do around 80% of all GP deliveries.An epidural service is not offered although planned epidurals can be performed. Since the beginning of the year, 4 G.P.'s are thought to have left the practice of obstetrics in Sydney, because of poor remuneration, restriction in lifestyle, the high cost of appropriate liability insurance coverage and concerns over medico-legal liability.

There is a general perception among medical staff that the hospital deals with an obstetric population in which there are a higher than average number of stillbirths, congenital abnormalities, low birth weight babies and pre-term infants. Social considerations, such as poor pre-natal nutrition, teenage pregnancies and births to single women are felt to be of major concern. Higher rates of gestational diabetes and pregnancy-induced hypertension were thought to be prevalent amongst the indigenous population of Cape Breton. A closer scrutiny of the relevant data for 1988 shows that while a number of these perceptions appear to be true only a properly conducted epidemiological study will show whether these are statistically significant.

There is general consensus that the present rate of C-section is too high and that the rate of 19%, which was suggested by RCP, might be a more appropriate figure. Statistical analysis and recent chart audits have disproved a widely-held assumption that referrals to Sydney Community from outlying hospitals account for much of the high rates of C-section. Poor pre-natal education of significant numbers of women is seen as a major problem and a possible factor contributing to low patient acceptance of the realities of vaginal delivery.

A number of practitioners identify a lack of commitment and support on the part of staff to the option of VBAC. Prior referral to an obstetrician, of patients contemplating VBAC, is not a requirement. A recent chart audit of 50 patients who underwent C-section in the latter part of 1989 provided strong evidence that many patients opted for planned repeat C-sections. Furthermore, the diagnosis of "labour" was questionable in a number of patients who discontinued trials of labour rather more prematurely than the situation may have warranted.

The educational preparation of nurses is seen to be lacking and demonstrated by over-reliance on monitors, inaccuracy in interpreting monitor strips and lack of commitment to VBAC.

2.2.3.4 Yarmouth Regional Health Centre

Yarmouth Regional Health Centre handles around 500-540 deliveries each year. Figure 6 shows the rates of repeat and primary C-sections between 1985 and 1990.

Figure 6

C-section Rates in Yarmouth Regional Health Centre, Yarmouth

	1985/86	1986/87	1987/88	1988/89	1989/90
Primary	13%	14%	16%	14%	15.6%
Repeat	10%	11%	10%	11%	11.3%
Total Rate	22.28%	25%	26%	25%	26.9%

Obstetrical services at the hospital are provided by a solo obstetrician, 15 G.P.s and 2 anaesthetists. In the obstetrician's absence, surgical coverage is provided by general surgeons, who operate on the recommendation of G.P.'s. The volume of work covered by this team provides an almost intolerable responsibility for the obstetrician whose dedication and hard work are universally applauded.

VBAC has not been offered at Yarmouth for a variety of reasons. The view is widely held that the hospital is unable to comply with the specific requirements of the Canadian Medical Protective Association regarding the approximate time of 30 minutes required for "set-up" of the O.R. The lack of a designated obstetrical operating room, staffed around the clock and available at any time, is seen to be an additional barrier. Permanent staff shortages, due largely to the geographic location of the hospital, militate against the 1 to 1 coverage required for the procedure. There is also a firmly-held conviction among many members of staff that VBAC is a dangerous procedure with a strong likelihood of associated uterine rupture.

An internal review of obstetrical practices in 1985 by the Reproductive Care Program of Nova Scotia resulted in a number of specific clinical recommendations, most of which were followed. However, the recommendation that an annual review of all C-sections be undertaken by a specific committee was not complied with. The Ad Hoc Committee on C-sections was disbanded, the task of reviewing C-sections became the responsibility of the Perinatal Committee and only trends in patterns and rates were observed,with no full review and no corrective action taken on the basis of observed trends.

Major deficits in the educational preparation of nurses were identified. Only one-third of all Full-Time Equivalents (F.T.E.s) on the obstetrical service have received any formal, post-graduate education in the specialty. A number of staff members lack skills and confidence in encouraging ambulation, assisting patients to change position appropriately and actively supporting and encouraging patients in labour.There is no continuity of care over the pre-natal, intra-partum and post-natal periods and little liaison with community health nursing services.

Despite repeated efforts by some community individuals over the years to obtain an explanation for what has been perceived as an unusually high rate of C-section at the hospital, no official response has been offered. An ongoing series of "letters to the editor" and newspaper articles appear to have constituted the dialogue between hospital and community on the issue since 1984.

The claim has been made that "one pregnant woman a week is transferred to the Grace Maternity Hospital in Halifax in order to obtain a VBAC or, indeed, to avoid a greater possibility of having a first-time C-section at Western Regional".[53] However, statistics from the RCP database in Halifax show that in 1988, only 3,and possibly 4, patients from the entire catchment area of Yarmouth Regional were transferred to the Grace Hospital for the specific purpose of obtaining a VBAC. It is possible that patients from Yarmouth may give a Halifax address for their place of residence, so that the number may indeed be greater. However, there is no way to verify this. There is also no record of the numbers of patients who travel to Halifax from Yarmouth to avoid the possibility of undergoing a primary C-section.

2.2.4 The Public Meetings

Public Meeting - Halifax. (June 6th., 1990)

This meeting was sparsely attended and one brief was presented on behalf of the Prepared Childbirth Association of Nova Scotia (PCANS). This submission recommended that pregnancy care be recognised as part of a continuum of services for women and that accurate and timely information should be publicly disseminated regarding the obstetrical practices of individual hospitals. PCANS deplored the lack of a psycho-social, less interventionist approach to birth and emphasised the need for an overhaul of the provincial system of maternity care.

The ensuing general discussion questioned the lack of "alternatives" within the Canadian system and emphasised the need for midwives and a "low-tech, high-touch" approach to maternity care. Further general discussion took place about the use of "active management of labour", the decline in numbers, and skills, of public health nurses and the perceived inadequacies of existing pre-natal education services in the province.

The need for education, informed consent and choices in all aspects of maternity care was emphasised and the general feeling was that more emphasis on low-key, less interventionist approaches to childbirth would help to reduce the Caesarean-section rate.

Public Meeting - Amherst (April 25th., 1990)

The meeting in Amherst was well attended. A number of oral presentations were made. A spokesperson for PCANS contended that the factors which contributed to high C-section rates included a lack of emergency epidural services, the use of "active management of labour",the lack of encouragement of VBAC, a decreasing number of family physicians practicing obstetrics and the absence of midwives in the system.

Other speakers at the meeting both challenged and supported the ideas presented. Some spoke in support of C-section as a life-saving procedure and questioned whether the hospital's human resources were sufficient to permit VBAC as a safe option. Deep concern was expressed over whether a lowered rate of C-section would endanger the lives of mothers and babies. Furthermore, the controversy over the issue was considered to have caused confusion and uncertainty in the community, and to have undermined staff morale at the hospital.

There was common agreement, however, that the appropriate performance of C-section was a life-saving procedure and that all present had the best interests of both mother and baby at heart.

Public Meeting - Sydney (May 10th,1990)

A small audience heard speakers identify a number of needs including the promotion and encouragement of VBAC, the humanization of the labour process, the coordination of hospital and community delivery of care, the provision of appropriate pre-natal care, better professional/patient communication, an increased emphasis on normal delivery, flexibility in hospital routines and the need for midwives in the system.

Public Meeting - Yarmouth (April 4th., 1990)

Well attended by 50 people, the meeting heard oral presentations from 11 people on the issue of C-sections . Those individuals questioning the local rates expressed concerns on the following issues :

- the lack of VBAC as an option in the local hospital
- the failure of the hospital to make public matters relating to obstetric policies and practices

- the failure by the hospital to respond openly to requests for information regarding C-section rates
- the absence of commitment to a family-centred, "low-tech" philosophy, manifested by an inflexible, routine, medicalized approach to childbirth.
- the absence of midwives in the system

Other speakers spoke in support of C-section as a life-saving necessity and questioned whether the hospital's human resources were sufficient to permit VBAC as a safe option. As in Amherst, concern was expressed over whether a lowered rate of C-section would endanger the lives of mothers and babies. Again, the Committee heard that existing controversy over the issue was causing confusion in the community and undermining staff morale at the hospital.

All agreed, however, with the appropriate performance of C-section as a life-saving procedure and that the best interests of both mother and baby were paramount.

There is general agreement that the rate of C-section in Nova Scotia is undesirably high. Few clinicians are willing to suggest a "desirable" figure , although rates between 15% and 20% are offered with a number of strong caveats attached. Geographic considerations, the availability of qualified health-care personnel and factors such as the level of professional expertise will continue to influence the delivery of obstetrical care in the province. Above all, the spectre of medico-legal liability looms large and there is little doubt that lawyers are influencing the practice of obstetrics.

Reduction in C-section rates

Any reduction in provincial rates of C-section will require a lower incidence of both primary and repeat C-sections. There is strong scientific evidence to support the safety and efficacy of vaginal birth after C-section. **Repeat C-Sections** could be reduced significantly if the principles articulated by the Canadian Consensus Conference on Aspects of Caesarean Birth were to be adopted throughout the province as guidelines for clinical practice, where the necessary criteria can be met. Hospitals providing obstetric services should be able to prepare for a C-section for **any** obstetric emergency within approximately 30 minutes including conditions such as ante-partum haemorrhage, cord prolapse and fetal distress as well as scar rupture.

Increasing the **incidence of vaginal delivery in primigravid women** with "dysfunctional" or slow labours is also possible and will require very critical scrutiny of the reasons giving rise to a diagnosis of "dystocia". The accurate diagnosis of established labour is essential. Those engaged in obstetrical practice must endeavour to develop more precise clinical parameters for the condition. In addition, the influence on the course of labour of such variables as active ambulation, the presence of strong support persons during labour and a non-clinical environment must be taken into consideration and incorporated into any evaluation of clinical protocols. Above all, health-care professionals must have a thorough understanding of what constitutes a "normal" labour before any diagnosis of abnormality can be made.

Nursing Education

Major deficits are apparent in the educational preparation of nurses working in the specialty of maternity care. New graduates in nursing have very limited experience in obstetrics and are ill-prepared to assume responsibility for the provision of obstetrical nursing care without additional professional training. Hospitals offer 'orientation' courses to new staff members, but there are no provincial **requirements** for post-graduate education in the specialty. A 3 month-long post-diploma course in Maternity Nursing is offered at the Grace Hospital to a total of 12 nurses each year while the RCP offers limited, brief, "on-the-job" refresher courses during their periodic visits to hospitals.

The existing course offerings at the Grace are considered limited in scope, content and relevance to local conditions. They are inadequate in addressing the wide range of educational needs of all levels of nursing personnel working in maternity care. There is, in short, a serious lack of formal and comprehensive education necessary to establish and maintain an appropriate standard of professional competence.

Physician Education

The committee encountered suggestions that clinical clerks and interns obtain insufficient experience in the conduct of deliveries as part of their professional education. Statements were also made that recently qualified general surgeons have difficulty in obtaining experience in the performance of Caesarean-section when they plan to practice in areas where such skills are required.

Midwives

The committee heard support for the idea of midwives from both lay and professional individuals alike. Although there are differences in the actual definition of a midwife, she represents a nurturing, supportive, less interventionist expert in the process of normal pregnancy and delivery. The midwife concept appears to embody all that is considered lacking in the present system.

Remuneration of Physicians

The present levels of remuneration for either normal deliveries or trials of labour do not offer physicians any incentive to "watch and wait". It is also appropriate to ask whether other professionals in the health-care system may not, with appropriate education, perform some of these tasks as efficiently and effectively without compromising the safety of the mother or the baby in any way.

Pain Relief in Childbirth

A geographically-dispersed population precludes the provision of epidural services on a guaranteed basis outside the Halifax metro area. The Grace Maternity Hospital is the only provincial institution with adequate numbers to support this service and the situation is unlikely to change.However, the Committee does not consider the absence of an epidural service to be a major factor contributing to an increased rate of C-section, although a better-coordinated approach is required for the appropriate pain relief of women in labour. Every effort should be made to allow women to avail themselves of the full spectrum of analgesic measures, both medical and psycho-social.

Consumer Concerns

The needs of a number of childbearing women in the province are not being met. Not all women in Nova Scotia are enthusiastic supporters of the present level of obstetrical services. In general, this dissatisfaction is articulated well by the Prepared Childbirth Association of Nova Scotia, whose members made presentations at all the public hearings held by the committee.These individuals have a concept of pregnancy as a satisfying continuum requiring intense education of the woman and her partner in the pre-natal period, with active support during labour and helpful assistance in the post-natal period. They emphasise the importance of the informed patient taking control of her labour and delivery in a low-tech environment.

Although some members of the organization advocate home delivery, this does not appear to be supported by all. Many advocate the use of midwives but this appears to mean not so much the European concept of the midwife with a strong nursing background as a well-trained empathetic female support figure.

From statements made by the group, it was calculated that they provide support for at least 1000 Nova Scotian women per year. This would suggest that 8% of the province's mothers-to-be are sufficiently disenchanted with the status quo to pay for alternative care. This number, if true, is significant and can not be ignored.

Communication with Consumers of Services

The consumer has too often been seen as a passive recipient of services, content to accept the judgment of the health-care professionals and expected to comply unquestioningly with whatever course of action is deemed appropriate for her. Any deviation from this pattern of behaviour is often seen as undermining the authority of the care-

givers, questioning their competence and challenging their professionalism. Many professionals regard the consumer of maternity services as uninformed, uneducated, unaware of choice and unable to make decisions. As a result, requests for alternatives are often dismissed as irrelevant and ill-informed. Demands for information are ignored and attempts by patients to play an active part in their own care are greeted with a less than enthusiastic response.

Communication is one of the most essential factors in the patient/professional relationship and forms the very basis of informed consent to treatment. The committee feels strongly that vigorous efforts should be made to enhance methods of effective communication between providers and recipients of obstetrical health-care services at both the individual and the organizational levels.

A total re-vamping of the system of maternity care is neither affordable nor achievable but much can be done within existing resource constraints to address the multiplicity of issues identified by the committee's inquiries. The Committee of Inquiry into Caesarean-section in Nova Scotia, therefore, recommends the following courses of action.

1. Vaginal Birth After C-Section

(VBAC) should be actively supported, encouraged and promoted by all members of the health-care team, where clinicians and institutions are confident that they can comply with the requirements of SOGC, the Canadian Consensus Conference recommendations and all relevant insuring agencies' stipulations for appropriate practice.

Pre-natal classes with specific reference to V.B.A.C. should be offered where appropriate by hospitals and Community Health services, and should encourage public awareness of VBAC as an alternative to repeat C-section by incorporating the appropriate educational approaches into their curricula. Each institution offering obstetrical services in the province should formally adopt a specific policy, for distribution to the population it serves, outlining its position on the issue.

2. Primary C-Section

The incidence of vaginal delivery should be increased for primigravid women. Policies on the diagnosis and management of labour, use of fetal monitors, induction of labour and other interventions should be developed on the basis of sound and current research, appropriately applied and carefully evaluated as to their effectiveness and outcomes.

3. Peer Review

A system of peer review should be instituted to ensure that Caesarean-sections are appropriately undertaken. Each hospital offering obstetrical services including Caesarean-Section should designate a committee to review all related standards, policies and procedures. This committee should develop a medical policy and procedure manual to ensure the organization and coordination of approaches to obstetrical care, with special reference to repeat C-section and VBAC. The committee should also ensure that the reasons for all C-sections are reviewed on a regular basis together with appropriate recommendations for corrective action on the issue, where indicated. The committee should also require that all patients who have undergone a previous C-section, receive a consultation by an obstetrician prior to labour and delivery.

4. External Audit

The Reproductive Care Program of Nova Scotia (RCP) has played a key role in the development of a uniform, coordinated approach to the delivery of safe obstetrical care in the province and should continue to do so. The Committee recommends that RCP accord priority to reducing the rate of Caesarean-section in the province. RCP should continue to advise its hospital clients of institution-specific ways to address identified problems on the issue of C-section and to implement the appropriate measures.

5. Provincial Consensus Conference

The Department of Health and Fitness should sponsor a one-day conference to assist clinicians and institutions in the province to develop clinical guidelines on the issue of Caesarean-section, specific to the unique needs of Nova Scotia's population and within the context of available resources.

6. Remuneration of Physicians

A thorough examination of possible variations in the system of remuneration for normal deliveries and for VBAC should be undertaken by the Health Services and Insurance Corporation, in conjunction with the Medical Society of Nova Scotia, at the earliest opportunity. In addition, the effect of the high medical liability insurance premium on the recruitment of physicians to obstetric practice at the family physician and specialist levels, should be examined.

(N.B. The Committee understands that corrective action on this issue is currently under consideration.)

7. Physician Education

The appropriateness of the educational preparation of family physicians intending to practice obstetrics should be examined by the Medical School.

8. Nursing Education

High priority should be given to a thorough review of the educational preparation of nurses practicing in the area of obstetrics and measures must be taken to ensure that such education is responsive to professional and patient needs, with suitable modification for individual institutions. A committee should be established with representation from the Nova Scotia Department of Health and Fitness (Institutions and Community Health Divisions), the Registered Nurses' Association of Nova Scotia , nursing education, RCP and the community, to develop an appropriate strategy to address the identified educational deficits. The impact of entry to practice requirements, increased transfer of function, specialization and demands for nurse-midwifery programs must be considered and guidelines should be developed for the roles, training and parameters of nursing practice in maternal/infant care.

9. Patient Education

Efforts should be made to encourage the patient to be responsible for decision-making regarding her own care. To this end, hospitals should develop and offer a specific birth plan for each patient. (Two examples can be found in Appendix 3) The offering of such a birth plan should allow the woman to make suitably informed choices well ahead of the time of labour and to discuss relevant issues with her birth attendants.

10. Midwifery

The Committee recommends that many of the midwifery concepts, previously described, be incorporated into the professional training of our present and future nurses and physicians, as a matter of high priority. The recommended review of nursing education and practice is the appropriate forum to address the issue of nurse-midwifery. Nova Scotia should continue to watch closely the experience of Ontario, Quebec and British Columbia in the field of midwifery.

11. Reproductive Care Program (RCP)

The mandate and method of operation of RCP should be reviewed, so that RCP's role as expert authority in obstetrical care in the province will be preserved. RCP should continue gathering the appropriate statistics to provide the essential basis of information necessary to monitor and evaluate perinatal trends in the province and to guide future planning and policy decisions.

12. Inter-Sectoral Cooperation

Physicians should be encouraged to refer pre-natal patients routinely to pre-natal classes conducted by the Department of Health and Fitness (Community Health Division). Similarly, Community Health services should be encouraged to work closely with the obstetric departments of local hospitals. Emphasis must be placed on keeping pre-natal classes current with hospital policies and practices. To ensure this, a community health nurse should serve on each hospital's perinatal committee.

Glossary of Terms

Birth Plan: written agreement between a woman and her doctor of midwife

Caesarean Birth: birth of a baby by cutting through the abdomen into the uterus and lifting the baby out

Electronic Fetal Monitor: Machine that keeps track of the baby's heartbeat and the mother's contractions during labour

Episiotomy: Incision (cut) that widens the vagina for the baby's head

Fetal Distress: a physical sign (like a heartbeat that is too fast or too slow) that shows the baby may be having problems before birth

Fetoscope: Special stethoscope used to listen to the baby's heartbeat during pregnancy and labour

Forceps: metal instruments that fit around the baby's head to help pull the baby out of the vagina

High Risk: having a medical condition (such as diabetes) that requires special care during pregnancy and birth

Labour: the work of giving birth

Multipara: a woman who has borne more than one child

Oxytocin: drug given either to start labour before it begins or to make labour contractions stronger

Primipara: a woman giving birth to a child for the first time

Rooming-in: the baby stays in the mother's room for all or part of the day

S.O.G.C.: Society of Obstetricians and Gynaecologists of Canada

Transfer of Function: the transfer by common consent, to the nursing profession, of a duty normally considered to be within the purview of the physician

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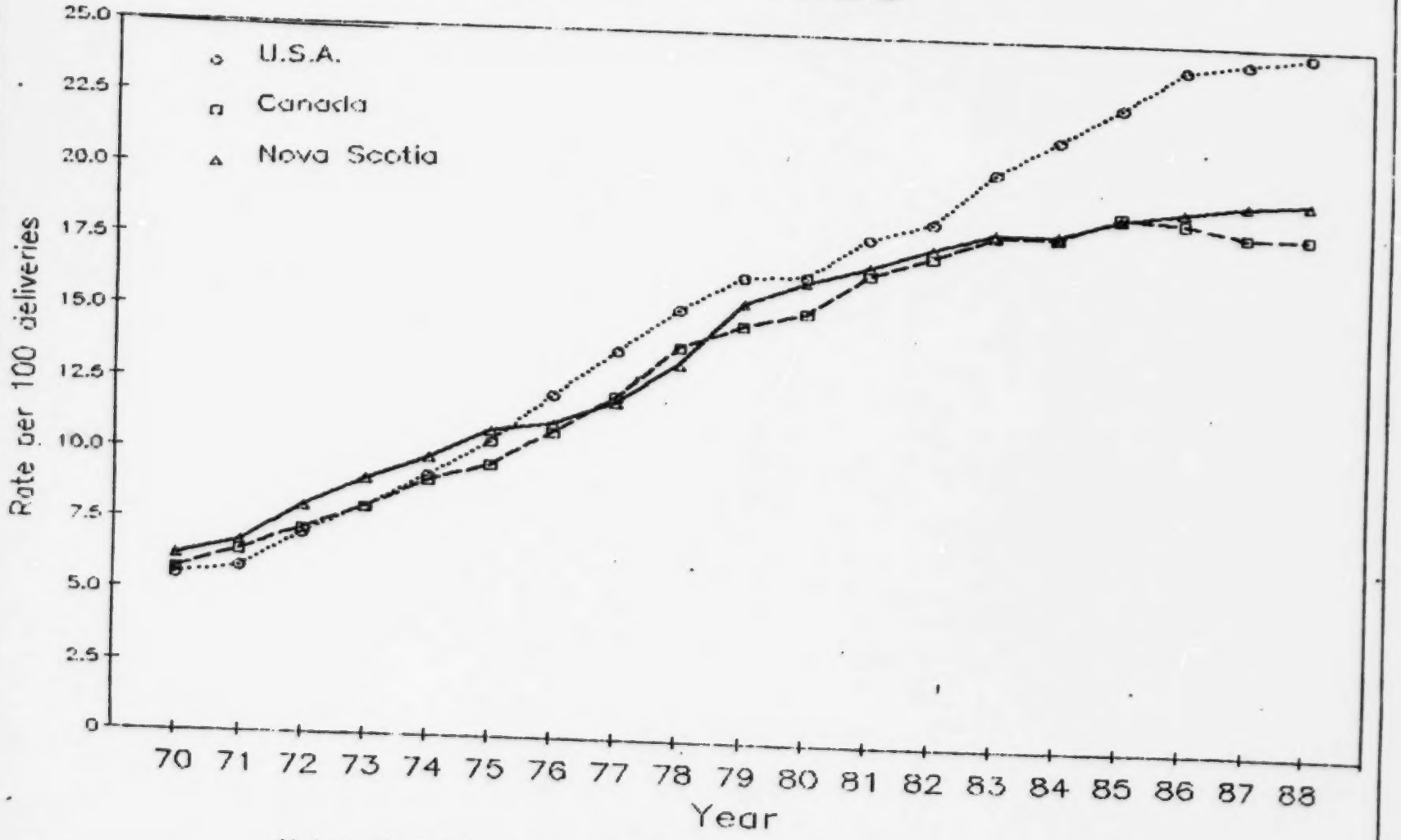
APPENDIX 1

C–Section Rates
Canada, U.S.A. and Nova Scotia
1970 – 1988



Note: Statistics from 83–89 were derived from sources other than Stats Can

C-Section Rates for U.S.A.

Canada and Nova Scotia

1970-1989

	U.S.A.	Canada	Nova Scotia
1970	5.5	5.7	6.2
1971	5.8	6.4	6.7
1972	7.0	7.2	8.0
1973	8.0	8.0	9.0
1974	9.2	9.0	9.8
1975	10.4	9.6	10.8
1976	12.1	10.8	11.1
1977	13.7	12.1	11.9
1978	15.2	13.9	13.3
1979/80	16.4	14.7	15.5
1980/81	16.5	15.2	16.3
1981/82	17.9	16.6	16.9
1982/83	18.5	17.3	17.6
1983/84	20.3	18.1	18.2***
1984/85			18.8
1985/86	22.7*	18.9	18.5
1986/87	24.1	18.7	19.1
1987/88	24.4	18.3**	19.4
1988/89	24.7		19.5

NOTE: Information supplied by Statistics Canada except for:
*U.S.A. stats from 1985/86 onwards obtained from National Centre for Health Statistics, Maryland.

**Canada rate for 1987/88 is an <u>estimate</u> by Statistics Canada

***Nova Scotian rates from 1983/84 onwards obtained from Nova Scotia Department of Health and Fitness A/S Reporting System.

APPENDIX 2

C-SECTIONS AND OTHER DELIVERIES IN NOVA SCOTIA HOSPITALS
1988/89

HOSPITAL	C-SECTION DELIVERIES	%	OTHER DELIVERIES	%	TOTAL DELIVERIES
ABERDEEN	101	22.4	349	77.6	450
ALL SAINTS		0.0	1	100.0	1
ANNAPOLIS GENERAL	1	1.5	65	98.5	66
BUCHANAN MEMORIAL		0.0	22	100.0	22
COLCHESTER REGIONAL	136	21.9	485	78.1	621
DIGBY GENERAL	31	19.0	132	81.0	163
EASTERN KINGS		0.0	56	100.0	56
EASTERN MEMORIAL		0.0		0.0	0
EASTERN SHORE		0.0	11	100.0	11
FISHERMEN'S MEMORIAL	11	8.8	114	91.2	125
GLACE BAY COMMUNITY	55	20.4	214	79.6	269
GRACE MATERNITY	1,124	19.7	4,582	80.3	5706
HALIFAX INFIRMARY		0.0	2	100.0	2
HANTS COMMUNITY	16	10.7	134	89.3	150
HIGHLAND VIEW	107	32.5	222	67.5	329
INVERNESS CONSOLIDATED	24	20.5	93	79.5	117
LILLIAN FRASER		0.0	1	100.0	1
NEW WATERFORD	5	6.2	76	93.8	81
NORTHSIDE HARBOUR VIEW	42	19.5	173	80.5	215
QUEENS GENERAL	13	9.8	119	90.2	132
ROSEWAY	9	8.2	101	91.8	110
SACRED HEART		0.0	19	100.0	19
SOLDIERS MEMORIAL	25	14.3	150	85.7	175
SOUTH SHORE REGIONAL	46	15.4	252	84.6	298
ST. MARTHA'S	80	12.0	588	88.0	668
ST. MARY'S		0.0	1	100.0	1
SUTHERLAND HARRIS		0.0	63	100.0	63
SYDNEY COMMUNITY	297	27.0	802	73.0	1099
TWIN OAKS		0.0	2	100.0	2
VALLEY HEALTH	130	22.4	450	77.6	580
VICTORIA COUNTY		0.0	31	100.0	31
VICTORIA GENERAL		0.0	1	100.0	1
WESTERN KINGS		0.0	147	100.0	147
YARMOUTH REGIONAL	146	26.0	416	74.0	562
TOTAL	2,399	19.5	9,874	80.5	12273

SOURCE: A/S REPORTING SYSTEM, DEPT. OF HEALTH AND FITNESS
TD89293B
DECEMBER 1989
89KDN015C

C-SECTIONS AND OTHER DELIVERIES IN NOVA SCOTIA HOSPITALS

HOSPITAL	DELIVERIES 1987 - 1988 C-SECTION DELIVERIES	%	OTHER DELIVERIES	%	TOTAL DELIVERIES
ABERDEEN	64	15.5	348	84.4	412
ALL SAINTS			7	100	7
ANNAPOLIS GENERAL	1	2.08	47	97.9	48
BUCHANAN MEMORIAL			25	100	25
COLCHESTER REGIONAL	128	22.2	448	77.7	576
DIGBY GENERAL	45	27.1	121	72.8	166
EASTERN KINGS			81	100	81
EASTERN MEMORIAL			3	100	3
EASTERN SHORE			16	100	-16
FISHERMEN'S MEMORIAL	11	8.94	112	91.0	123
GLACE BAY COMMUNITY	46	18.6	201	81.3	247
GRACE MATERNITY	1095	19.8	4433	80.1	5528
HALIFAX INFIRMARY			2	100	2
HANTS COMMUNITY	15	12.1	108	87.8	123
HIGHLAND VIEW	80	23.5	260	76.4	340
INVERNESS CONSOLIDAT	28	17.8	129	82.1	157
LILLIAN FRASER			33	100	33
MUSQUODOBOIT VALLEY			1	100	1
NEW WATERFORD	13	13.8	81	86.1	94
NORTHSIDE HARBOUR VI	53	21.6	192	78.3	245
QUEENS GENERAL	18	17.6	84	82.3	102
ROSEWAY	3	3.44	84	96.5	87
SACRED HEART			16	100	16
SOLDIERS MEMORIAL	37	21.5	135	78.4	172
SOUTH SHORE REGIONAL	32	10.9	260	89.0	292
ST. MARTHA'S	116	15.7	621	84.2	737
ST. MARY'S			2	100	2
STRAIT-RICHMOND			1	100	1
SUTHERLAND HARRIS			54	100	54
SYDNEY COMMUNITY	296	25.1	880	74.8	1176
TWIN OAKS			1	100	1
VALLEY HEALTH	120	24.8	362	75.1	482
VICTORIA COUNTY			38	100	38
VICTORIA GENERAL	1	100			1
WESTERN KINGS	4	2.45	159	97.5	163
YARMOUTH REGIONAL	135	26.8	367	73.1	502
TOTAL	2341	19.4	9712	80.5	12053

SOURCE: A/S REPORTING SYSTEM, DEPT. OF HEALTH AND FITNESS

APRIL/89
89KM015C

C-SECTIONS AND OTHER DELIVERIES IN NOVA SCOTIA HOSPITALS

HOSPITAL	DELIVERIES 1986 - 1987 C-SECTION DELIVERIES	%	OTHER DELIVERIES	%	TOTAL DELIVERIES
ABERDEEN	103	18.8	443	81.1	546
ALL SAINTS			31	100	31
ANNAPOLIS GENERAL	4	6.45	58	93.5	62
BUCHANAN MEMORIAL			35	100	35
COLCHESTER REGIONAL	107	18.7	463	81.2	570
DIGBY GENERAL	56	33.1	113	66.8	169
EASTERN KINGS			80	100	80
EASTERN MEMORIAL			7	100	7
EASTERN SHORE			9	100	9
FISHERMEN'S MEMORIAL	6	5.08	112	94.9	118
GLACE BAY COMMUNITY	51	18.0	231	81.9	282
GRACE MATERNITY	1028	18.8	4437	81.1	5465
HALIFAX INFIRMARY			2	100	2
HANTS COMMUNITY	26	19.5	107	80.4	133
HIGHLAND VIEW	80	23.6	258	76.3	338
INVERNESS CONSOLIDAT	27	23.6	87	76.3	114
LILLIAN FRASER			32	100	32
NEW WATERFORD	10	15.3	55	84.6	65
NORTHSIDE HARBOUR VI	51	21.3	189	78.6	239
QUEENS GENERAL	22	16.9	108	83.0	130
ROSEWAY	14	9.92	127	90.0	141
SACRED HEART			25	100	25
SOLDIERS MEMORIAL	33	18.2	148	81.7	181
SOUTH SHORE REGIONAL	32	9.96	289	90.0	321
ST. MARTHA'S	84	13.1	556	86.8	640
ST. MARY'S			2	100	2
SUTHERLAND HARRIS			68	100	68
SYDNEY COMMUNITY	357	30.4	815	69.5	1172
TWIN OAKS			8	100	8
VALLEY HEALTH	122	22.6	416	77.3	538
VICTORIA COUNTY			36	100	36
VICTORIA GENERAL	1	16.6	5	83.3	6
WESTERN KINGS	10	5.95	158	94.0	168
YARMOUTH REGIONAL	129	23.9	410	76.0	539
TOTAL	2353	19.1	9919	80.8	12272

SOURCE: A/S REPORTING SYSTEM, DEPT. OF HEALTH AND FITNESS

APRIL/89
89KM015C

C-SECTIONS AND OTHER DELIVERIES IN NOVA SCOTIA HOSPITALS

HOSPITAL	DELIVERIES 1985 - 1986 C-SECTION DELIVERIES	%	OTHER DELIVERIES	%	TOTAL DELIVERIES
ABERDEEN	104	16.6	520	83.3	624
ALL SAINTS			54	100	54
ANNAPOLIS GENERAL	1	1.33	74	98.6	75
BAYVIEW MEMORIAL			5	100	5
BUCHANAN MEMORIAL			31	100	31
COLCHESTER REGIONAL	121	20.4	470	79.5	591
DARTMOUTH GENERAL			1	100	1
DIGBY GENERAL	44	24.5	135	75.4	179
EASTERN KINGS			88	100	88
EASTERN MEMORIAL			9	100	9
EASTERN SHORE			11	100	11
FISHERMEN'S MEMORIAL	14	10.6	118	89.3	132
GLACE BAY COMMUNITY	53	22.7	180	77.2	233
GLACE BAY GENERAL	13	15.4	71	84.5	84
GRACE MATERNITY	1030	19.0	4376	80.9	5406
GUYSBOROUGH MEMORIAL			1	100	1
HALIFAX INFIRMARY			3	100	3
HANTS COMMUNITY	21	14.8	120	85.1	141
HIGHLAND VIEW	75	26.3	210	73.6	285
INVERNESS CONSOLIDAT	17	13.8	106	86.1	123
LILLIAN FRASER			29	100	29
MUSQUODOBOIT VALLEY			1	100	1
NEW WATERFORD	15	14.8	86	85.1	101
NORTHSIDE HARBOUR VI	76	24.2	237	75.7	313
QUEENS GENERAL	20	16.6	100	83.3	120
ROSEWAY	11	9.24	108	90.7	119
SACRED HEART	2	8	23	92	25
SOLDIERS MEMORIAL	36	18.1	162	81.8	198
SOUTH SHORE REGIONAL	29	9.09	290	90.9	319
ST. MARTHA'S	84	12.4	591	87.5	675
STRAIT-RICHMOND			1	100	1
SUTHERLAND HARRIS			59	100	59
SYDNEY COMMUNITY	315	26.6	866	73.3	1181
TWIN OAKS			15	100	15
VALLEY HEALTH	96	20.0	382	79.9	478
VICTORIA COUNTY			34	100	34
VICTORIA GENERAL			7	100	7
WESTERN KINGS	10	5.84	161	94.1	171
YARMOUTH REGIONAL	119	22.7	405	77.2	524
TOTAL	2306	18.5	10140	81.4	12446

SOURCE: A/S REPORTING SYSTEM, DEPT. OF HEALTH AND FITNESS

APRIL/89
89KM015B

C-SECTIONS AND OTHER DELIVERIES IN NOVA SCOTIA HOSPITALS

HOSPITAL	DELIVERIES 1984 - 1985 C-SECTION DELIVERIES	%	OTHER DELIVERIES	%	TOTAL DELIVERIES
ABERDEEN	101	18.0	458	81.9	559
ALL SAINTS			62	100	62
ANNAPOLIS GENERAL	1	1.61	61	98.3	62
BAYVIEW MEMORIAL			6	100	6
BUCHANAN MEMORIAL			30	100	30
COLCHESTER REGIONAL	106	20.1	420	79.8	526
DIGBY GENERAL	47	25.4	138	74.5	185
EASTERN KINGS	1	1.04	95	98.9	96
EASTERN MEMORIAL			13	100	13
EASTERN SHORE			17	100	17
FISHERMEN'S MEMORIAL	12	7.94	139	92.0	151
GLACE BAY COMMUNITY	52	21.4	190	78.5	242
GLACE BAY GENERAL	22	17.4	104	82.5	126
GRACE MATERNITY	1003	18.9	4288	81.0	5291
HALIFAX INFIRMARY			1	100	1
HANTS COMMUNITY	24	16.2	124	83.7	148
HIGHLAND VIEW	72	29.0	176	70.9	248
INVERNESS CONSOLIDAT	11	10.4	94	89.5	105
LILLIAN FRASER			41	100	41
MUSQUODOBOIT VALLEY			1	100	1
NEW WATERFORD	20	22.4	69	77.5	89
NORTH CUMBERLAND			13	100	13
NORTHSIDE HARBOUR VI	55	17.5	259	82.4	314
QUEENS GENERAL	18	14.4	107	85.6	125
ROSEWAY	9	8.03	103	91.9	112
SACRED HEART	2	10	18	90	20
SOLDIERS MEMORIAL	41	18.2	184	81.7	225
SOUTH SHORE REGIONAL	27	8.76	281	91.2	308
ST. MARTHA'S	90	12.7	618	87.2	708
ST. MARY'S			1	100	1
STRAIT-RICHMOND			2	100	2
SUTHERLAND HARRIS			66	100	66
SYDNEY CITY	1	100			1
SYDNEY COMMUNITY	348	30.1	805	69.8	1153
TWIN OAKS			16	100	16
VALLEY HEALTH	103	23.6	332	76.3	435
VICTORIA COUNTY			42	100	42
VICTORIA GENERAL			1	100	1
WESTERN KINGS	6	3.65	158	96.3	164
YARMOUTH REGIONAL	144	26.0	408	73.9	552
TOTAL	2316	18.8	9941	81.1	12257

SOURCE: A/S REPORTING SYSTEM, DEPT. OF HEALTH AND FITNESS

APRIL/89
89KM015B

C-SECTIONS AND OTHER DELIVERIES IN NOVA SCOTIA HOSPITALS

HOSPITAL	DELIVERIES 1983 - 1984 C-SECTION DELIVERIES	%	OTHER DELIVERIES	%	TOTAL DELIVERIES
ABERDEEN	114	17.7	528	82.2	642
ALL SAINTS			92	100	92
ANNAPOLIS GENERAL	2	3.50	55	96.4	57
BAYVIEW MEMORIAL			3	100	3
BUCHANAN MEMORIAL			41	100	41
COLCHESTER REGIONAL	114	18.7	494	81.2	608
DIGBY GENERAL	47	20.9	177	79.0	224
EASTERN KINGS			91	100	91
EASTERN MEMORIAL			12	100	12
EASTERN SHORE			24	100	24
FISHERMEN'S MEMORIAL	13	9.48	124	90.5	137
GLACE BAY COMMUNITY	36	14.8	207	85.1	243
GLACE BAY GENERAL	18	15.9	95	84.0	113
GRACE MATERNITY	965	18.8	4156	81.1	5121
GUYSBOROUGH MEMORIAL			2	100	2
HANTS COMMUNITY	49	24.2	153	75.7	202
HIGHLAND VIEW	70	27.6	183	72.3	253
INVERNESS CONSOLIDAT	17	11.3	133	88.6	150
LILLIAN FRASER			50	100	50
MUSQUODOBOIT VALLEY			3	100	3
NEW WATERFORD	12	12.9	81	87.0	93
NORTH CUMBERLAND			18	100	18
NORTHSIDE HARBOUR VI	57	15.8	302	84.1	359
QUEENS GENERAL	17	13.6	108	86.4	125
ROSEWAY	16	13.5	102	86.4	118
SACRED HEART	3	8.82	31	91.1	34
SOLDIERS MEMORIAL	48	25.6	139	74.3	187
SOUTH SHORE REGIONAL	33	10.7	274	89.2	307
ST. MARTHA'S	69	9.59	650	90.4	719
ST. MARY'S			2	100	2
SUTHERLAND HARRIS			64	100	64
SYDNEY COMMUNITY	341	30.2	785	69.7	1126
TWIN OAKS			21	100	21
VALLEY HEALTH	76	18.7	329	81.2	405
VICTORIA COUNTY			45	100	45
WESTERN KINGS	4	2.24	174	97.7	178
YARMOUTH REGIONAL	133	25.1	396	74.8	529
TOTAL	2254	18.1	10144	81.8	12398

SOURCE: A/S REPORTING SYSTEM, DEPT. OF HEALTH AND FITNESS

APRIL/89
89KM015A

APPENDIX 3

THE FAMILY BIRTH CENTRE
PEEL MEMORIAL HOSPITAL

MAKING A BIRTH PLAN:

At the Family Birth Centre we want you to have the most gratifying birth experience possible. Each woman and family has different expectations, different needs, and different concerns, with respect to childbirth. In order to help you plan your birth experience, we have developed a list of choices available to you.

After thinking through these choices, complete the birth plan and book a "double appointment" with your doctor to discuss the pros and cons of the choices you feel will best suit your needs. This way you can arrive at a plan that is agreeable to both you and your doctor.

During Childbirth, there is always potential for sudden and unexpected change. In those situations it is very important to understand that your doctor may have to make rapid decisions that deviate from your original plan, for the welfare of both you and your baby. You and your family will, of course, be included in all decisions.

Once you and your physician have reviewed your birth plan bring it to the Family Birth Centre to share with your nurse.

Answer Yes or No or leave blank if you have no preference one way or the other.

Labour: Walk to the Family Birth Centre ____

- or -

Take wheelchair ____

Routine shave ____

Routine enema ____

continued page/2.....

Labour (continued):

The persons I have chosen for support during labour are:_____

_____

Siblings present during labour ____

Presence of a translator ____

Fluids only during labour or light foods ____

Monitoring of baby's heart rate by the nurse at regular intervals ____

Electronic Fetal Monitoring (only if medically indicated) ____

Wear own clothing during labour and birth ____

Relief of Labour Pain:

Human Support ____

Positioning, relaxation techniques, massage and breathing ____

Music ____

Water Relaxation (Jacuzzi) ____

Other means: ____

Describe:_____

Medications: Epidural Anaesthesia ____

Entonox ____

Injectable analgesics ____

continued page/3.....

BIRTH:

Presence of chosen person(s) throughout birth ____

Siblings present for birth ____

Position for pushing during delivery chosen by me ____

Warm compresses to the perineum ____

Avoid episiotomy (whenever possible) ____

Freedom to touch the baby's head during delivery ____

Baby placed on my tummy after birth ____

AFTER THE BIRTH:

The baby's father to cut umbilical cord ____

Intramuscular injection of Syntocinon to contract uterus ____

- or -

Waiting to see if uterus contracts well on its own ____

Shower for me and/or baby's father soon after birth ____

Celebration meal from cafeteria ____

- or -

Bring in celebration meal from home ____

Baby's father to stay in the room with me until check out ____

continued page/4.....

THE BABY:

Immediate care of baby done on my abdomen ____

Keep baby warm with skin to skin contact with me, with blanket over baby ____

Delay of Vitamin K injection and installation of Erthromycin ointment to eyes for up to one hour after the birth ____

Baby immediately breast fed after birth ____

- or -

Baby formula fed

Unrestricted breast feeding (no supplemental formula or water) ____

Use of pacifiers ____

Family / Visitors in to celebrate with me ____

- or -

Limited visitors until after I have gone home ____

Baby and me in our own clothes ____

- or -

Hospital clothes ____

Circumcision (NB. Arranged in Day Surgery sometime during baby's first month of life) ____

continued page/5.....

GOING HOME:

Check out within 24 hours ____

Transfer to postpartum unit
(for medical complications only) ____

THE UNEXPECTED:

Caesarean Birth:

Father or other support person present
during Caesarean birth ____

Anaesthesia preferred for Caesarean Birth:

Epidural or General
(Decision to be made in collaboration
with the Anaesthetist and Obstetrician) ____

With Epidural Anaesthesia I wish to
wear my glasses or contacts ____

Father or other support person to accompany
me to recovery room after C-Section ____

To breast feed in recovery room ____

PRE-MATURE OR SICK INFANTS:

To express colostrum and start breast
feeding as soon as possible ____

Be as involved in the care of the baby as
I like - feeding, diapering, touching,
talking, etc. ____

To see baby before transfer to the Hospital
for Sick Children ____

PEEL MEMORIAL HOSPITAL

THE FAMILY BIRTH CENTRE

Pregnancy Care - Questionnaire - Part One

Welcome to The Family Birth Centre. One of our nursing staff will be with you shortly. To help us ensure that everyone receives the assistance they require, please complete the following questionnaire. This page will be kept with your prenatal record and is strictly confidential. Thank you.

a) Pregnancy

1) Is this your first pregnancy? Yes _____ No _____

If no, how many children do you have? _____

2) Have you ever experienced a miscarriage or abortion?

Yes _____ No _____

3) Have you ever had a child that was born prematurely or with a problem? Yes _____ No _____

4) Do you plan to attend prenatal classes? Yes _____ No _____

Where? _____

Do you need information about prenatal classes? Yes _____ No ___

5) Do you need to see a nutritionist for an individualized diet?

Yes _____ No _____

6) Do you plan to work during your pregnancy? Yes _____ No _____

Occupation: _____

7) Do you have any particular concerns related to your prenatal health or health care?

_____

_____

continued page/2.....

b) Background Information

1) Are you: married ____ common-law ____ separated ___

divorced ____ single ____ (please check one)

What is your partner's name? _____ age _____

2) Are finances a concern for you during this pregnancy?

Yes _____ No _____

Would you like to see one of our Social Workers? Yes ____ No ___

3) Who are the members of your immediate family? (Please list names and ages for all family members in your household)

_____ _____

_____ _____

4) Were you born in Canada? Yes _____ No _____

If no, where were you born? _____

How long have you lived in Canada? _____

Is your first language English? Yes _____ No _____

If no, what language do you speak? _____

5) Are you new to the Brampton area? Yes _____ No _____

6) Why did you decide to register with the Family Birth Centre?

_____

_____

Do you need more information about:

_____Pregnancy Changes
_____Fetal Development
_____Diagnostic Tests
_____Prenatal Health and Fitness
_____Symptoms to Report
_____Reasons for Transfer to OBS service

Thank you for answering these questions. If you have any special concerns at this time, please discuss these with your nurse.

PEEL MEMORIAL HOSPITAL

THE FAMILY BIRTH CENTRE

Pregnancy Care - Questionnaire - Part Two

To help us provide the care you need, please answer the following questions. All answers are strictly confidential.

a) Childbirth

1) Are you attending prenatal classes? Yes _____ No _____

Where? _____

2) Do you have a partner to accompany you in labour?

Yes _____ No _____ Partner's Name _____

Have you completed a Birth Plan? Yes ___ No ___ (Please attach)

Have you discussed your Birth Plan with your physician?

Yes _____ No _____

3) Please describe your previous childbirth experiences (if applicable)

_____

_____

_____

_____

4) Do you have any particular concerns about this childbirth?

_____

5) Do you have any concerns about hospital policies/procedures?

_____

_____

continued page/2.....

b) Infant Care

1) How do you plan to feed you baby? Breast _____ Bottle _____

Do you know how to check your breasts for inverted nipples?

Yes _____ No _____

2) Have you ever cared for a newborn infant before? Yes ____ No ___

3) Who is your baby's physician? _____

Have you arranged for a follow-up visit for you baby by seven days of age?

4) Have you arranged for somebody to be with you and your baby for the first 48 hours after discharge?

Yes _____ No _____ Who will this be? _____

5) Have you attended the Childbirth Mini-Series?

Yes _____ No _____ Date _____

6) Are you familiar with the services provided by the Public Health Nurse?

Yes ____ No ____ (Name/Phone # of PHN) _____

7) Do you need more information about:

_____ Signs of Labour
_____ What to expect during labour and birth
_____ Test/Procedures
_____ Use of Medication
_____ Caesarian Childbirth
_____ Newborn Care
_____ Circumcision
_____ Hospital Routines/Resources
_____ Community Resources

Please attach you consent form and a map for home visits as this might be helpful for your nurse.

PEEL MEMORIAL HOSPITAL
THE FAMILY BIRTH CENTRE

Statement of Consent

The Family Birth Centre at Peel Memorial Hospital is intended for use by women and their families who anticipate a normal childbirth. The Birth Centre is designed to provide a safe and comfortable environment for healthy women desiring natural childbirth.

Emergency equipment is on hand in the Family Birth Centre for the unexpected complications of mother or newborn. If problems develop requiring intervention, the mother and/or newborn will be transferred to the appropriate hospital unit.

I have been oriented to the policies of the Birthing Centre by my nurse and/or physician. I understand that there are specific conditions that require transfer to the hospital. I agree to transfer if such conditions develop.

I understand that the Family Birth Centre is a short stay facility. I will be expected to be discharged to home within 24 hours after the birth. (If mother and baby are well). I have seen the Family Birth Centre and have had opportunity for any questions to be answered.

The undersigned have read and understood the above.

Witness	Mother's Signature
Date	Father's Signature

(CONSENT)

PEEL MEMORIAL HOSPITAL

THE FAMILY BIRTH CENTRE

NURSING HISTORY

Date of Registration:_____ Due Date:_____

Attending Physician/Obstetrician:_____

M.R.P. for Infant:_____

Support Person:_____

A) BASIC CONDITIONING FACTORS:

1) Age/Developmental State:_____

2) Family Development:

Number of people living in household:_____ Pets:_____

Names/Ages of Family Members:_____

_____

3) Sociocultural Orientation:

Ethnic Origin:_____ Languages Spoken:_____

Religion:_____ Relevant Customs:_____

4) Relevant Family History:

Woman:_____

Baby's Father:_____

5) Family System Factors:

List any significant stressors during pregnancy.

_____

_____

continued page/2.....

5) Patterns of Living:

Lifestyle:_____
(work, exercise, recreation)

Profession/Occupation: Woman:_____

Partner:_____

Habits:_____
(smoking, alcohol, drug use, caffeine)

Financial concerns?_____Social work referral?_____

B) HEALTH STATE:

Ontario Antenatal Record on File: Yes_____No_____

1) Medical History:

Allergies_____Local Anaesthetic_____

Blood Group_____Rhogam_____Previous Transfusion_____

Heart Disease_____Pulmonary Embolism_____Drug Addiction_____

Diabetes Mellitus_____Psychotic Disorders_____

Seizure Disorder_____Anticonvulsants?_____

Bleeding Disorders_____

Sickle Cell/Thalassemia_____Hypertension_____

Hepatits_____Herpes Genitalis_____

Birth Control Method:_____

Uterine Surgery (describe) _____

Other problems: (infertility) _____

ontinued page/3.....

2) Past Pregnancies:

G _____ P _____ A _____ Ectopic _____

Pregnancies: (Date, Length of Gestation, Weight, Any Problems with Childbirth and/or baby. Include preterm/posterm, Rh sensitization, jaundice).

_____

_____

_____

_____

_____

_____

_____

Perinatal Loss (describe)_____

Other Relevant Losses_____

3) Current Pregnancy:

a) Initial Visit (_____wks) Prepregnancy Weight_____

Prenatal Care Good_____ Poor _____ Inverted Nipples _____

Current Medications (list) _____

Risk factors indentified:_____

Risk Grade _____ Accepted for care Yes_____ No_____

continued page/4.....

Other problems experienced during this pregnancy:_____

_____

Concerns/Questions:_____

_____

F.B.C. information package given _____ Classes reviewed _____

Plans to take (classes) _____

b) Follow-up visit (36 weeks)

P.I.H. _____ Mild _____ Moderate/Severe _____

Presentation/Position _____

Gestational Diabetes _____ Requires Insulin? _____

Risk factors identified (include fetal disorders, multiple gestation, IUGR, pyelonephritis, placenta previa, abnormal lie or presentation, poorly controlled asthma, genital herpes, lack of prenatal care)

_____

Other problems/concerns: _____

d) Client's perception of health state: _____

Nurse's perception of health state: _____

Family agrees to transfer when required? Yes _____ No _____

e) <u>POWER COMPONENTS</u> (complete at 36 weeks)

f) Prenatal Classes this pregnancy: _____ Where: _____

Prenatal Classes past pregnancy:_____
(NB. Identify learning needs on page 7)

continued page/5.....

2) Anxiety (scale 0-10): _____

Source of Anxiety:

Infant's Health: _____ Fear of Pain: _____

Fear of Losing Control: _____ Infant Care: _____

Other: _____

3) Expectations re: this birth experience: _____

_____

_____

4) Desired Pain Relief Measures:
(Summarize woman's goals/expectations)

_____

_____

_____

_____

Birth Plan: Reviewed:_____ Attached: _____

Did client discuss her plan with doctor?_____

D) SELF CARE REQUISITES (complete at 36 weeks)

1) Air, Food, Water

Hb: _____ BP: _____ FH: _____

Weight: _____ Weight Gain: _____ Swelling: _____

Fetal Growth: _____

Condition of Buccal Cavity: _____

Appetite: _____ Special Diet:_____

Smoking: Yes _____ No _____ (How Much? _____)

Plans to Breast Feed: _____ Bottle Feed: _____

continued page/6.....

2) Elimination:

Bowel Pattern: _____ Problems: _____

Bladder Pattern: _____ Problems: _____

Urine Tests: ____:____ Ketones: _____

3) Activity and Rest:

Sleep Pattern: _____Sleep Disturbances: _____

Rest Pattern: _____Exercise Pattern: _____

4) Solitude/Social Interaction:

Significant others present during labour (list) _____

_____

F/U Visit Arranged with baby's physician: Yes _____ No _____

Circumcision: Yes _____ No _____ Arranged: Yes _____ No _____

Significant others available at home postpartum: _____

_____

Other resources: _____

When does mother plan to return to work? _____

Baby Care Plans: _____

Name Chosen for Baby: _____

Community Health F/U needed? _____Referred (date) _____

continued page/7.....

NURSING CARE PLAN BASED ON ASSESSMENT

A) Nursing Diagnosis -Self Care Deficits:

related to knowledge, skill or motivation:

1) _____

_____

2) _____

_____

3) _____

_____

B) Plan Interventions:

1) _____

_____

2) _____

_____

3) _____

_____

BIRTH PLAN

Once you and your physician have agreed upon the way you will labour and birth your baby, it is often a good idea to prepare a birth plan that can be attached to your chart at the hospital. You will be in contact with many strangers who will not be aware of your plans unless they have some kind of a birth plan to refer to. This sheet can be removed from the manual and attatched to your chart once you have filled it in.

LABOUR SUPPORT (write yes or no in front of each statement)

_____Husband present.

_____Other family member present. Specify:_____

_____Professional labour coach present. Name:_____

_____No separation of mother from support people.

_____Camera okay in labour and delivery. No flash.

_____Other children present for labour and delivery.

LABOUR

_____Fluids on request throughout labour.

_____Food on request throughout labour.

_____Routine external fetal monitoring for short periods.

_____Routine external monitoring throughout labour.

_____Use of the doppler.

_____Internal electronic monitoring.

_____Monitoring of fetal heart tones by fetascope.

_____Freedom of movement during labour.

_____Prep shave.

_____Enema.

_____Full information on risks and benefits of each medical procedure.

_____Artificial rupture of membranes.

_____Analgesia or anaesthesia for pain during labour. Kind preferred if problem arises that makes anaesthesia necessary:_____

_____Routine I.V.

BIRTH

_____Presence of support people during birth.

_____Presence of support people during cesarean.

_____Birth in labour room.

_____Choice of pushing position.

_____Birth in labour bed.

_____No drapes.

_____Mother to watch birth in mirror.
_____Episiotomy.
_____Tear preferred to episiotomy.
_____Freedom to touch baby during delivery.
_____Mother and father 'catch baby'.
_____Baby immediately onto mother's chest.
_____Routine suctioning.
_____Dimmed lights for birth.
_____Late cord clamping.
_____No masks for support people.
_____Baby rubbed dry with coarse towels.
_____Routine oxytocin injection after birth.
_____Baby nursing right away.
_____Electronic warmer for baby.
_____Ilotycin preferred for eye care.
_____Baby stays with mother until she is ready to let go before routines done to baby.

RECOVERY

_____Family stays together during recovery.
_____Baby goes to nursery during recovery.

POST-RECOVERY

_____Baby remains in nursery except for feedings.
_____Immediate rooming-in.
_____Early discharge. Specify:_____
_____Modified roomin-in. Specify:_____
_____Sibling visitation with mother only (Baby viewed in nursery).
_____Sibling visitation with baby and mother.
_____Grand parent visits with baby and mother.
_____Breastfeeding on demand from birth.
_____Water for baby.
_____Circumcision.
_____Baby brought to mother whenever it cries.
_____Extra help hired by parents to care for post cesarean mother.
_____Tests done on baby without parental consent.
_____Father visits anytime.